

REMARKS

Claims 1 through 45 are now pending in this application. In response to the Office Action of July 14, 2004, claims 2, 3, 7, 9 and 11 have been amended, new claims 12 through 45 have been added, and drawing replacement sheets have been submitted. Care has been taken to avoid the introduction of new matter. A petition for one month extension of the period for response, with appropriate fee charge authorization, is filed herewith. Favorable reconsideration of the application as now amended is respectfully solicited.

Objection has been made to the Drawings at paragraphs 1 and 2 of the Office Action. In response, the specification and drawings have been reviewed. Replacement drawing sheets are submitted with reference numeral "56" changed to reference numeral "66" in Fig. 2, reference numeral "61" added to Fig. 3, and reference numerals "43" and "65" added to Fig. 8. Each of these changes is supported by the specification. Withdrawal of the objection is respectfully solicited.

Claims 7 and 8, although under objection, have been indicated to be allowable if claim 7 is rewritten in appropriate independent form. In response, claim 7 is now independent, including the original recitations of claims 1 and 6. Allowance of claims 7 and 8 is respectfully solicited. Claims 2, 3 and 11 have been amended to depend from now independent claim 7.

Claims 1 through 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U. S. patent 6,580,188 (Katagiri) in view of U. S. patent 5,747,909 (Syverson) and U.S. patent 6,087,744 (Glauning), as set forth at pages 3-5 of the Office Action.

Legal precedent is well developed on the subject of obviousness. In the application of a rejection under 35 U.S.C. §103, it is incumbent upon the examiner to factually support a conclusion of obviousness. *In re Mayne*, 104 F.3d 1339, 41 USPQ2d 1451 (Fed. Cir. 1997); *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). As stated in *Graham v. John Deere Co.* 383 U.S. 1, 13, 148 USPQ 459, 465 (1966), obviousness under 35 U.S.C. §103 must

be determined by considering (1) the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims in issue; and (3) resolving the level of ordinary skill in the pertinent art. The examiner must provide a reason why one having ordinary skill in the art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985); *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *In re Warner*, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967).

In order to establish the requisite motivation, "clear and particular" factual findings must be made as to a specific understanding or specific technological principle which would have realistically compelled one having ordinary skill in the art to modify a particular reference to arrive at the claimed invention based upon facts-- not generalizations. *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 57 UPSQ2d 1161 (Fed. Cir. 2000); *Ecolochem Inc. v. Southern California Edison, Co.* 227 F.3d 361, 56 USPQ2d 1065 (Fed. Cir. 2000); *In re Kotzab*, 217 F.3d 1365, 55 USPQ 1313 (Fed. Cir. 2000); *In re Dembiczaik*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999). In addition, the Examiner is required to explain why one having ordinary skill in the art would have been realistically motivated to modify a particular reference in a particular manner to arrive at a particular claimed invention; *Ecolochem Inc. v. Southern California Edison, Co. supra*; *In re Rouffet*, 149 F.3d 1350, 47 USPQ2d 1453 (Fed. Cir. 1998). Such motivation, of course, regardless of its source, must be based upon "clear and particular" showings in the prior art -- not in the application disclosure; *In re Dembiczaik, supra*; *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 227 USPQ 337 (Fed. Cir. 1985).

The Office Action recognizes that Katagiri does not disclose a unitary non-ferromagnetic stator mounting structure as required by independent claim 1. It was also recognized that Katagiri does not disclose a central passage that extends along the axis of both a wheel axle

portion and a stator mounting portion of the structure as required by claim 1. For the conclusion of obviousness, the Office Action points to the Syverson disclosure of non-ferromagnetic material used for a *rotor* core and the Glauning disclosure of a central passage that extends through a *rotor* mounting element. The rationale stated for the conclusion of obviousness is that “since [the three patents] are in the same field of endeavor, the purpose of Syverson and Glauning would have been recognized in the pertinent art of Katagiri.”

It should be evident from the above summarized legal principles, that a classification of applied references as being in the same “field of endeavor” does not meet the burden of establishing obviousness. Moreover, the phrase “field of endeavor,” which is absent from the statute, is incapable of clear definition. The phrase is subjective, as well as varying in its scope from one technology to another. Rather, focus must be placed on particular teachings in the references in order to develop support for the conclusion of obviousness. It is respectfully submitted that the Office Action does not meet the established standard.

The Office Action has not addressed differences between the cited references and certain claim requirements, the references, nevertheless, being relied upon for application to the claimed subject matter. Both Syverson and Glauning disclose *rotor* element features that were relied upon in the Office Action to address claimed *stator* recitations. The Office Action refers to a Syverson teaching of improving flux efficiency in the rotor. The Office Action does not explain the relevance of this teaching to the claimed stator arrangement. Syverson is directed to a unique hybrid alternator having both permanent magnets and wound poles on the same rotor structure. It is submitted that such a machine is so different in structure from the motor of Katagiri that a person of ordinary skill in the art would have had no motivation from the Syverson disclosure to modify Katagiri, regardless of whether or not the two patents can be classified as in the “same field of endeavor.” Glauning is directed to a machine that may be used as a motor to start an internal combustion engine as well as a generator for supplying voltage to

a vehicle electrical system. The machine has a complex hybrid air and water cooling system. It is submitted that the Office Action has not provided a rationale as to why a person of ordinary skill in the art would have been impelled by the teachings of the Glauning disclosure to modify the Katagiri motor, which is housed in a bicycle wheel. Moreover, the Office Action does not explain how its proposed modification of Katagiri specifically is to be implemented and in keeping with the stated operational objectives of Katagiri. It is submitted, therefore, that claim 1 and its dependent claims 2 through 6 are patentably distinguishable. Withdrawal of the rejection is respectfully solicited.

New independent claims 12 through 45 have been added. The new claims recite various combinations of the claim elements discussed above that are lacking in Katagiri, as well as additional dependent claim details. Accordingly, allowance of claims 1 through 45 is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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